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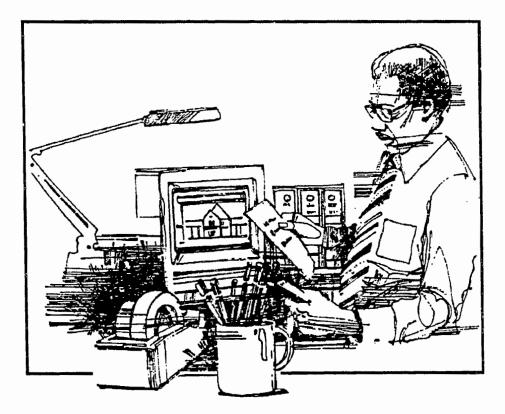
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ABSTRACT

Since building designers play a key role in the school construction process, it is important they be selected based on qualifications, level of service, and ability to work with education professionals. This report provides guidance to boards of education, superintendents, and other school administrators in this selection process. A methodology is presented which incorporates some of the factors and qualifications that should be considered when selecting and contracting with architects and engineers. Included are the types of design contracts available and suggestions for preparing and negotiating the contract. Appendices contain sample of requests for Letters of Intent, designer selection criteria, potential contract modifications and additional design services, and the costs not part of the design contract. (Contains 9 references.) (GR)

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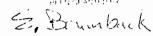


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OCTOBER 1996

PUBLIC SCHOOLS OF NORTH CAROLINA STATE BOARD OF EDUCATION JAY ROBINSON, CHAIRMAN BOB ETHERIDGE, STATE SUPERINTENDENT DEPARTMENT OF PUBLIC INSTRUCTION

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WITH SPECIAL THANKS TO THE NCAIA GOVERNMENTAL AFFAIRS COMMITTEE FOR THEIR REVIEW AND INPUT

FOREWORD

This publication provides superintendents, school boards and other school administrators with a guide to help them in the selection of professional designers for new schools, renovations, additions and repair projects for school-owned buildings.

Because designers play a key role in the design and construction process, it is of paramount importance that they be selected on the basis of their qualifications, level of service and ability to work with education professionals. The success of a project is dependent, in large part, upon these factors.

Bob Etheridge

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State Superintendent

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North Carolina Department of Public Instruction

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INTRODUCTION AND OVERVIEW

The selection of a qualified designer may be one of the most important steps in ensuring a successful new school building or renovation. This publication offers suggestions to Boards of Education, Superintendents and other school administrators to guide them through this process. A methodology is presented which incorporates some of the factors and qualifications that should be considered when selecting and contracting with architects and engineers.

State law requires the use of architects and engineers on all but the very smallest projects (See School Planning Publication entitled "Selected Laws") and also regulates, in general, how these designers must be selected. The overall purpose of these laws is to protect the life, safety and health of the building's occupants. In addition, 1993 legislation introduces new requirements for energy efficiency and building renovations versus replacement that can have an impact upon selection of designers.

Buildings for educational purposes are specialized and complex. For this reason, it is generally considered prudent to select a designer who is experienced in school-related design or a major aspect of the particular project being planned such as restoration, auditoriums, energy efficiency, etc. In addition to experience, the designer should also provide a high quality level of services. Every firm, however, must design their first school at some point, and, in certain instances, it may even be advantageous to select a designer who may not be experienced with schools but can offer other unique qualifications related to the project and a potentially

new approach. This consideration is often given greater weight when the project is small or has other unique features.

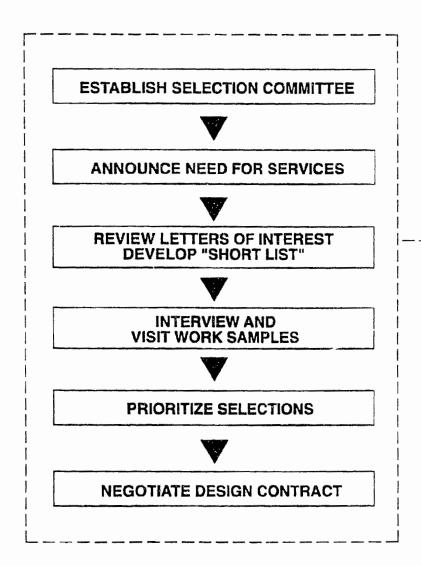
The Designer Selection Process is a small portion of the overall design and construction process (see flow chart pp 6-7); however, its importance cannot be overemphasized. The time, effort and expense of selecting the most qualified designer will definitely pay dividends throughout the design and construction



The importance of selecting a qualified designer cannot be overemphasized.

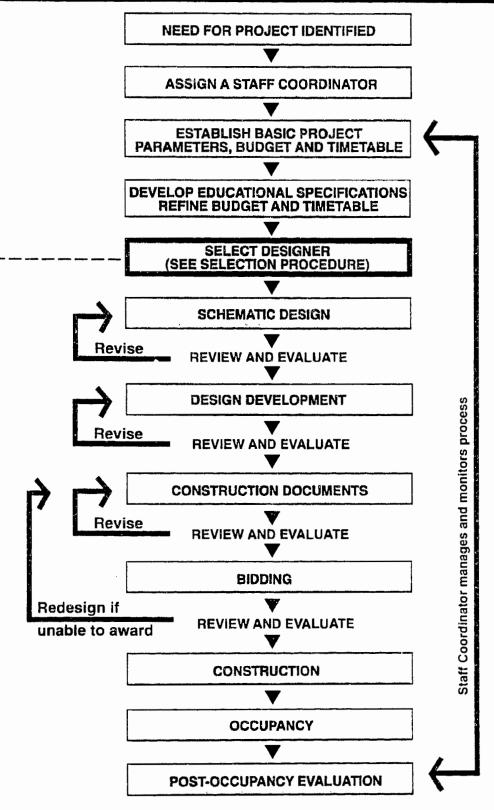
process and through the long-range use and operation of the facility. This process is the first step in the building of a project team that will eventually include you, the architect and the contractor plus the students and staff utilizing the facility. This team will work closely together to provide the highest quality of work possible. The selection of the designer is the first building block in this strong team foundation.

DESIGNER SELECTION PROCEDURE



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DESIGN AND CONSTRUCTION PROCESS



QUALIFICATION-BASED SELECTION OF DESIGNERS

The NC General Assembly enacted a "Qualification-Based Selection" law in 1987 stipulating the method that public agencies must use in the selection of designers. This law is similar to one used by the federal government (the federal Brooks Bill). This statute requires that initial selection of designers be based upon their qualifications for a particular project and then fee negotiations be undertaken to establish an equitable price. This statute follows:

GS 143-64.31

It is the public policy of this State and all public subdivisions and Local Governmental Units thereof, except in cases of special emergency involving the health and safety of the people or their property, to announce all requirements for architectural and engineering services, to select firms qualified to provide such services on the basis of demonstrated competence and qualification for the type of professional services required without regard to fee other than unit price information at this stage, and thereafter to negotiate a contract for architectural or engineering services at a fair and reasonable fee with the best qualified firm. If a contract cannot be negotiated with the best qualified firm, negotiations with that firm shall be terminated and initiated with the next best qualified firm. (1987, c.102, s.1)

This law is a valuable benefit to school boards seeking design services because it requires purchase of services based upon qualifications rather than simply the lowest price and it reinforces a team approach to design rather than an adversarial relationship. The law was enacted to overcome the problems of purchasing all goods and services on the basis of lowest cost, especially when equal quality among bidders cannot be guaranteed.

The pitfalls of purchasing supplies, equipment and constructing buildings with public funds are well known: Purchases are made on the basis of "Lowest Bid." This is the philosophy that "the cheapest is the best," but it often leads to the purchase of materials whose quality is less than expected. For the purchase of certain items where the quality is exactly equal among several manufacturers and the finish, thickness, materials, etc. can be accurately specified, competitive bidding can result in the lowest price without sacrifice in quality. However, when purchasing complex services, exact levels of quality cannot be so easily identified or specified. It is extremely difficult to specify levels of quality of design services.

This is because many tasks are unknown until later stages of the design process and because of the creative factors that are involved in solving problems associated with specific construction and programmatic needs.

In addition to difficulties in specifying "equal" design services, competitive price bidding establishes an "adversarial relationship" between the buyer and seller. The buyer is trying to get the best product, the seller is trying to make the most money. This relationship is the antithesis of the Owner/Designer relationship in which the Designer is contractually the Owner's "Agent."



An adversarial relationship is not likely to be an effective means of designing a school.

The "Qualification-Based Selection" law means that a designer is selected on the basis of "how good they are for this project", rather than "the lowest price" and that the design costs are negotiated on the basis of what is reasonable and fair compensation for the amount of services to be performed. It means that the owner can "get what they pay for" and that the designer is "working as a member of the

owner's team" rather than "limiting quality and service due to a low fee." Designers traditionally compete with each other by proposing more or better services for the same or similar fee. Designers cannot reduce their fee without reducing the quality level or amount of services they provide (or they would go bankrupt very quickly). If they are forced to reduce the quality or scope of services, the overall quality of the project will suffer, resulting in increased construction, operation and maintenance costs as well as a less functional facility.



Select a designer to be a team member.

A quality designer acts as the school system's "Agent" throughout the design and construction process. The designer will represent your interests in dealings with the contractors, governmental agencies and others. The firm will lend its expertise in the construction industry and its unique problem-solving abilities to assist the school system in developing new and renovated facilities to serve our children.

METHODS FOR SELECTING A DESIGNER

You can use several methods for selecting your designer including:

- A. "Qualification-Based Selection": which is intended to fulfill the requirements of GS 143-64.31, such as outlined herein.
- B. Annual Service Agreements: These agreements are sometimes utilized by larger institutions for performing multiple, small, miscellaneous projects such as partition relocations, H/C modifications, etc. on an ongoing basis. As of this writing, fees to any one designer are limited to a maximum of \$50,000 per year and \$10,000 for any one project. Larger projects cannot be broken down in small pieces to utilize this method.
- C. Design Competition: This is usually reserved for very large, monumental projects due to its high cost for potential designers and lengthy time required to prepare and judge submissions. When used, design firms should be compensated for their time in some manner. Consult with the AIA for recommended guidelines when this approach is considered.

RECOMMENDED PROCEDURE FOR DESIGNER SELECTION

Establish a selection committee and prepare a
description of the project and anticipated needed
services. One school system staff member who is
on the committee should be assigned project coordination responsibility from inception to occupancy and act as liaison with the designer.
The prepared list should include:



Establish a designer selection committee composed of key staff members.

- a. Type and size of project (i.e. Middle school to house 800 students plus 40 special education students), including size and location of site and any special or unusual aspects of the building program.
- b. Budget for construction and/or total project budget including fees, construction, testing, furnishing, contingency, etc.
- c. Anticipated needed services; as a minimum this should include: architectural and engineering services for Schematic Design and evaluation of educational program, Design Development, Construction Documents, Bidding and Construction Administration. Also itemize any non-basic, additional or related services required. A listing of some additional services that may be required are itemized in appendix E.
- d. Proposed time schedule and occupancy date.
- e. A list of information required from interested design firms in order to make a preliminary selection. This should include the firm's name and address, resumés of key personnel, examples of similar work, references and names of former clients, proposed consultants and any other information as appropriate to preliminary selection.
- 2. Make an "announcement" of the anticipated need for designer services, including whom to contact for information and a closing date for receipt of information. Often this "announcement" consists of a legal advertisement, mailings to local or "pre-qualified" design firms or other methods. Contact the school board attorney for what steps are required to fulfill statutory obligations. Usually this announcement solicits "Letters of Interest and Qualifications" from designers. An example of this announcement is included as Appendix A. It does not ask for specific services or cost proposals. The normal procedure is to request that interested firms submit a packet containing the background information and work history enumerated above. One frequently used format is the US government "Standard Form 254" (and possibly Standard Form 255). See Appendix B.

- 3. Select Designers for interview (Short List) from the "letters of interest" received. Review the background qualifications and experience contained therein and make a preliminary selection of designers (normally 3 to 5 firms) to interview in-depth. Notify the firms not selected for the "short list" and thank them for their interest. It is often advantageous to invite the "short listed" firms to tour the site of the proposed project and to give them detailed educational specifications so that they may gain a better understanding of the scope of the work.
- 4. Interview "short list" design firms, contact their references and visit examples of their work. It is important to visit one or more of each designer's former projects so that the building's quality and the function within can be observed firsthand and an evaluation obtained from its users. In addition, contact prior clients for reference on the success of the design and construction process as well as the completed building. During the interview more can be learned about the design firms, including photos or plans of similar work, approaches to design for your specific project, experience of staff who would be assigned to this project, consultants, and other factors which may lend to the success of the building program. Allow each firm 30-45 minutes for their presentation, with 10-20 minutes for questions at the end (refer to appendix "C" for potential selection criteria). Note that for "minor" construction projects (where estimated total project costs are less than \$500,000), this interview step can be omitted. Try to interview all firms in a single day so that each firm's presentation can have a more equal basis in subsequent ratings and final decisions.
- 5. Final Selection of designers: Among those interviewed, carefully evaluate each firm's qualifications as they relate to the project being considered. This evaluation often involves both objective and sub-

evaluation often involves both objective and subjective criteria as outlined in appendix "C." Rank each firm in priority order (in case the top choice withdraws or an equitable contract cannot be negotiated). Present this prioritized list to the school board for final selection.

Negotiate a design fee and contract with the top selection, based upon all the services needed and the money budgeted. If a fair



Carefully evaluate each firm's qualifications.

and equitable fee cannot be agreed upon with the top choice (which is very unusual), terminate negotiations with that designer and proceed with the next choice and so on until satisfactory terms can be agreed to. Notify the other firms interviewed of the final selection and thank them for their time and interest.

TYPES OF DESIGN CONTRACTS

When a design firm has been selected, an Owner-Designer Agreement must be prepared to protect both the school board and the designer as well as to outline the scope of services that will be required and the compensation associated with these services. Several types of contracts (usually titled "agreements") are available depending upon the type of services needed for the project. The usual types of these agreements include:

LUMP SUM:

In this form of agreement, the dollar sum for basic design services is stipulated in the agreement. This is probably the most advantageous type of contract on projects with public funding because project costs are set and limited by appropriation. This method allows both parties to know and budget the design cost from the beginning. Minor additional services and reimbursable costs are often in addition to the lump sum unless they can be identified and included from the outset.

PERCENTAGE OF CONSTRUCTION COST:

With this method, the design fee is based upon a percentage of construction cost. Because the actual construction cost is not known until bidding, fees are initially based upon construction cost estimates. This type of contract is similar to a lump sum agreement, but we recommend against it for most projects because total design costs cannot be determined at the outset. A percentage of construction cost contract can be useful; however, when the scope and eventual cost of the project are likely to undergo substantial change during the design phases.

MULTIPLE OF DIRECT PERSONNEL EXPENSE:

With this type of agreement, the designer is reimbursed for their actual time on a monthly or phase basis. The cost of the designer's "in-house" salaries + benefits times a multiplier (usually 2.5-3.0) is billed to the Owner for each hour expended on the project. The designer's costs for outside services of consultants, reproduction, etc. are also billed to the Owner at a multiple to include administrative costs, profit and overhead. Sometimes a set of hourly rates is quoted which already includes this multiplier. This is often the method used by attorneys or with design work where the extent of work required cannot be defined initially.

PROFESSIONAL FEE PLUS EXPENSES:

The designer is paid a fixed fee for his individual services and, in addition, is reimbursed for his technical support and overhead. An exact scope of services must be known from the outset. This method is not used frequently in this region.

PER DIEM RATES

The Designer is reimbursed at a daily flat rate for whenever his services are required. Occasionally used for services of the architect's consultants or for site visits, trips or very limited service.

PREPARING & NEGOTIATING THE CONTRACT

Because it is the most advantageous for school systems, the following is based upon the assumption that a "Lump Sum" fee arrangement is utilized. With this type of contract, all (or most of) the design services are included within a fixed price agreed to from the outset. This lump som dollar amount would normally range from 5% up to 15% of the budgeted construction cost. The lower percentages

are usually applicable to large, straightforward design projects such as a new school on a simple site and without any additional services or reproduction expenses. The higher percentages are more applicable to small and/or complicated projects such as asbestos abatement, renovations or similar specialized work. Although it is common to compare design fees as a percentage of construction cost, fees are often developed by the preparation of a time and material estimate by



Modify standard contracts to meet the project's specific needs.

the designer. Negotiating lower design fees thus results in fewer design staff hours expended on the project, which, in turn, translates directly into lower quality of services. Be prepared to fairly compensate the designer for the level and quality of service that is needed.

The most common form of agreement is the "standard" AIA document, B141, "Standard Form of Agreement Between Owner and Architect." We recommend use of this form due to its numerous cross references to other construction document forms, years of research in development, and testing in courts and arbitration. For these reasons, we urge school boards to beware the use of non-standard or custom-developed contract forms. AIA forms are, however, standard, generic documents and cannot be completely applicable to all projects without modification for special circumstances peculiar to a specific project's situation and needs. With any modification, however, consult with your attorney. For suggestions on possible contract modifications for consideration, refer to Appendix D.

We recommend that the school board include as many needed services within the lump sum figure as possible in order to control and predict design services costs from the outset. For this reason, consider including items usually stipulated as "reimbursable" expenses as a part of basic services. These would include reproduction, printing of review and bidding sets of plans and specs (up to a reasonable limit), travel within the locale, long distance telephone, etc. The designer will increase their "Basic Services Fee" to include these additional items. Extra costs would then be reserved for "special" situations which could be approved in advance and which could not be foreseen from the outset. For suggestions on possible additional services for consideration and inclusion with the basic scope of services, refer to Appendix E. Other costs will also be incurred which are not a part of the design agreement. Examples of these costs are shown in Appendix F.

SUMMARY

As a governmental entity, choosing a designer is one of the very few opportunities a school system has for selecting materials or contract services on the basis of qualifications rather than price alone.

The school system's designer acts as its agent and representative in dealings with contractors and others, working in the system's interest rather than being driven by the cheapest method of delivering a product. Choosing a firm that works well as a team member with the school board staff will enhance the design and construction process and result in a more successful building.

The size of a firm is usually of much less importance than the qualifications and experience of their key staff. Many highly qualified design firms are available in our region. Differences in fees from one firm to another are usually minimal, and especially so when compared to the total project cost. A highly competent firm which provides extensive and quality services can save the cost of their fee in the reduction of construction costs and change orders. The result will be a well-designed, flexible school that will provide decades of service to our children and grand-children.

Recent legislation with regard to energy efficiency and feasibility of renovation of older school buildings has placed additional constraints on the building design and construction process. Ensure that these factors are taken into account as well as the more traditional criteria in the selection of your designers.

APPENDICES

SAMPLE "REQUEST FOR LETTERS OF INTEREST"

PART A: SAMPLE ADVERTISEMENT

REQUEST FOR LETTERS OF INTEREST FROM DESIGNERS

The Jefferson County Board of Education is seeking Letters of Interest and Qualifications from design firms for architectural and engineering services for the design and construction administration of a new 750 student middle school to be located on Hwy 88 in Jefferson County, NC. An educational program has been developed for all spaces and their relationships which comprise a total of 110,000 square feet including classrooms, special education, media center, cafeteria, gym and site development. An on-site sewer system will be required; however, municipal water is available. An energy budget goal of 36,000 BTUH/sf/year has been established.

Interested firms shall submit a letter of interest and qualifications including the following to:

Designer Selection Committee Jefferson County Board of Education PO Box 12345 Yourtown, NC 28888

Required Information:

- 1. Letter of Interest
- 2. Federal Standard Form 254
- Resumés of design team members, including consultants, or Federal Standard Form 255
- 4. Related projects experience during the last 10 years, including project description, contact names and numbers for reference, or Federal Standard Form 255
- 5. Other information you may feel is applicable (maximum one page)

Closing date for receipt of Letters of Interest and Qualifications shall be no later than 5:00 pm Friday August 1, 1990.

PART B: ADDITIONAL INFORMATION TO BE SUPPLIED TO FIRMS SELECTED FOR INTERVIEW (SHORT LIST)

After Letters of Interest are received, the Designer Selection Committee will evaluate the material received and make a preliminary selection of 3-5 firms to interview in-depth. Out of courtesy, the Selection Committee should notify the firms not selected and thank them for their participation. At this time, additional project information should be distributed to the firms to be interviewed and a site visit arranged for these firms to learn more details pertinent to the project. The package of information distributed to each of the firms to be interviewed should include:

- Detailed description of the project
- Total Project Budget
- Project timetable and/or required occupancy date
- Interview schedule with list of all firms being interviewed
- Additional information requested by Selection Committee for discussion/presentation at interview
- Educational Specifications
- Special project constraints (if any)

APPENDIX B

SAMPLE FORM 254 AND FORM 255

STANDARD FORM (SF)

and Related Services **Architect-Engineer** Questionnaire

Purpose

and related professional services is to encourage firms lawfully engaged in the practice of those professions to submit annually a statement of qualifications and performance data. Standard Form 254, "Architect Engineer and Related Services Questionnaire" is provided for that purpose. Interested A-E firms (including new, small, and/or minority firms) should complete and file SF 254's with each Federal agency and with appropriate regional or district offices for which the A-E is qualified to perform services. The agency head for each other performance data or file or requested by the agency, in relation to the proposed project. The SF 254 may be used as a basis for selecting firms for proposed project shall evaluate these qualification resumes, together with any discussions, or for screening firms preliminary to inviting submission of The policy of the Federal Government in acquiring architectural, engineering additional information.

Definitions

ices associated with research, development, design and construction, alteration, or repair of real property, as well as incidental services that members of these professions and those in their employ may logically or justifiably perform, including studies, investigations, surveys, evaluations, consultations, planning, programming, conceptual designs, plans and specifications, cost estimates, inspections, shop drawing reviews, sample recommendations, prep-"Architect-engineer and related services" are those professional servaration of operating and maintenance manuals, and other related services.

conglomerate which is the major stockholder or highest tier owner of the firm competing this questionnaire; ie. Firm A is owned by Firm B which is, in turn, a subsidiary of Corporation C. The "parent company" of Firm A is Corporation C. "Principals" are those individuals in a firm who possess legal responsibility for its management. They may be owners, partners, corporate officers, asso-"Parent Company" is that firm, company, corporation, association or ciates, administrators, etc

"Discipline", as used in this questionnaire, refers to the primary technological capability of individuals in the responding firm. Possession of an academic degree, professional registration, certification, or extensive experience in a particular field of practice normally reflects an individual's primary technical

discipline. "**Joint Venture"** is a collaborative undertaking by two or more firms or individuals for which the participants are both jointly and individually responsible.

"Consultant", as used in this questionnaire, is a highly specialized individual. and possessing unusual or unique capabilities for assuring success of the "Prime" refers to that firm which may be coordinating the concerted and or firm having significant input and responsibility for certain aspects of a project inished work

complementary inputs of several firms, individuals or related services to produce a completed study or facility. The "prime" would normally be

regarded as having full responsibility and liability for quality of performance by

Itself as well as by subcontractor professionals under its jurisdiction.

"Branch Office" is a satellite, or subsidiary extension, of a headquarters office of a company, regardless of any differences in name or legal structure of such a branch due to local or state laws. "Branch offices" are normally subject to the management decisions, bookkeeping, and policies of the main office.

instructions for Filing (Numbers below correspond to numbers contained in form)

1. Type accurate and complete name of submitting firm, its address, and zip

Ia. Indicate whether form is being submitted in behalf of a parent firm or a branch office. (Branch office submissions should list only personnel in, and experience of, that office.)

Provide date the firm was established under the name shown in question 1.

Show date on which form is prepared. All information submitted shall be

Enter type of ownership, or legal structure, of firm (sole proprietor, current and accurate as of this date.

partnership, corporation, joint venture, etc.)

Check appropriate boxes indicating if firm is (a) a small business concem; (b) a small business concern owned and operated by socially and economically disadvantaged individuals; and (c) Women-owned; (See 48 CFR 19.101 and 52.219-9).

Stanches of subsidiaries of large or parent companies, or conglomerates,

5. Branches of subsidiaries of large or parent companies, or conglomerates, should insert name and addresss of highest tier owner.

5a. If present firm is the successor to, or outgrowth of, one or more predecessor firms, show name(s) of former entity(ies) and the year(s) of heir orginal establishment.

6. List not more than two principals from submitting firm who may be contacted by the agency receiving this form. (Different principals may be listed on forms going to another agency.) Listed principals must be empowered to speak for the firm on policy and contractual matters.

7. Beginning with the submitting office, list name, location, total number of

7. Beginning with the submitting office, list name, location, total number of personnel and telephone numbers for all associated or branch offices, (includ ing any headquarters or foreign offices) which provide A E and related services

-.7 -.3

Show total number of employees, by discipline, in submitting office. (If form being submitted by main or headquarters office, firm should list total 7a. Show total personnel in all offices. (Should be sum of all personnel, all branches.

in several disciplines, each person should be counted only once in accord with his or her primary function. Include clerical personnel as "administrative." Write in any additional disciplines—sociologists, biologists, etc.—and number employees, by discipline, in all offices.) While some personnel may be qualified of people in each, in blank spaces.

9. Using chart (below) insert appropriate index number to indicate range of professional services fees received by submitting firm each calendar year for last five years, most recent year first. Fee summaries should be broken down to

STANDARD FORM 254 (Rev. 10-83)
PRESCRIBED BY GSA, FAR (48-CFR) 53-236-2(b)





NSM 7540-01-152-8073

254

254

and Related Services Architect-Engineer Questionnaire

reflect the fees received each year for (a) work performed directly for the Federal Government (not including grant and loan projects) or as a sub to other professionals performing work directly for the Federal Government; (b) all other domestic work, U.S. and possessions, including Federally assisted projects, and (c) all other foreign work.

Ranges of Professional Services Fees

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5. \$1 million to \$2 million 6. \$2 million to \$5 million 7. \$5 million to \$10 million 8. \$10 million or greater Less than \$100,000 \$100,000 to \$250,000 \$250,000 to \$500,000 \$500,000 to \$1 million

10. Select and enter, in numerical sequence, **not more than thirty** (30) "Experience Profile Code" numbers from the listing (next page) which most accurately reflect submitting firm's demonstrated technical capabilities and project experience. **Carefully review list.** (It is recognized some profile

project experience. **Asterniny review isst. (it is recognized some profile codes may be part of other services or projects contained on list; firms are encouraged to select profile codes which best indicate type and scope of services provided on past projects.) For each code number, show total number of profects and gross fees (in thousands) received for profile projects performed by firm during past few years. If film has one or more capabilities not included on list, insert same in blank spaces at end of list and show numbers in question 10 on the form. In such cases, the filled in listing nuest accompany the complete SP 254 when submitted to the Federal agencies.

11. Using the "Experience Profile Code" numbers in the same sequence as entered in item 10, give details of at least one recent (within last five years) representative project for each code number, up to a maximum of thirty (30) separate projects, or portions of projects, for which firm was responsible. (Project examples may be used more than once to illustrate different services rendered on the same job. Example: a dining plal may be part of an auditorium or educational facility.) Firms which select less than thirty "profile codes" may list two or more project examples (to illustrate specialization) for each code number in question 11, show: (a) whether firm was "P, the prime professional, or "C," a consultant, or "JW," part of a joint venture on that particular project (New lirms, in existence less than five (5) years may use the symbol. Its "To to indicate "Individual Experience" as opposed to lime experioffice); (d) show the estimated construction cost (or other applicable cost) for that portion of the project for which the firm was primarily responsible. (Where no construction was involved, show approximate cost of firm's work); and (e) state year work on that particular project was, or will be, completed. 12. The completed SF 254 should be signed by a principal of the firm. ence); (b) provide name and location of the specific project which typifies firm's (or individual's) performance under that code category; (c) give name and address of the owner of that project (if government agency indicate responsible

Additional data, brochures, photos, etc. should not accompany this form preferably the chief executive officer. 13. Additional data, brochures, phote unless specifically requested.

in connection with performance of projects for which they are qualified. Such firms are encouraged to complete and submit Standard Form 254 to appropriate agencies. Questions on the form dealing with personnel or experience may be answered by citing experience and capabilities of Individuals in the firm, based or performance and responsibility while in the employ of others. In so doing, notation of this fact should be made on the form, in question 9, write in "N/A" to indicate "not applicable" for those years prior NEW FIRMS (not reorganized or recently-amalgamated firms) are eligible and encouraged to seek work from the Federal Government to firm's organization.

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STANDARD FORM 254 (REV 10 83)

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Purpose:

This form is a supplement to the "Architert Engineer and Related Services Questionnaire" (SF 254). Its purpose is to provide additional information regarding the qualifications of interested firms to undertake a specific Federal E project. Firms, or branch offices of firms, submitting this form should en close (or already have on file with the appropriate office of the agency) a cur rent (within the past year) and accurate copy of the SF 254 for that office

The procurement official responsible for each proposed project may request submission of the SF 255. Architect Engineer and Related Services Question naire for Specific Project in accord with applicable civilian and military procurement regulations and shall evaluate such submissions as well as related information contained on the Standard Form 254, and any other performance data on file with the agency, and shall select firms for subsequent This form should only be filed by an architect engineer or related services Responses should be as complete and accurate as possible, contain data rela tive to the specific project for which you wish to be considered, and should be firm when requested to do so by the agency or by a public announcement discussions leading to contract award in conformance with Public Law 92 582 provided, by the required due date, to the office specified in the request or public announcement

This form will be used only for the specified project. Do not refer to this sub mittal in response to other requests or public announcements

Definitions

professions and those in their employ may logically or justifiably perform, including studies, investigations, surveys, evaluations, consultations, planning, programming, conceptual designs, plans and specifications, cost estimates, inspections, shop drawing reviews, sample recommendations, preparation of associated with research, development, design and construction, alteration, or repair of real property, as well as incidental services that members of these "Architect-engineer and related services" are those professional services operating and maintenance manuals, and other related services.

Principals" are those individuals in a firm who possess legal responsibility for its management. They may be owners partners, corporate officers, associates administrators, etc "Discipline", as used in this questionnaire refers to the primary technological capability of individuals in the responding firm. Possession of an academic degree, professional registration certification or extensive experience in a particular field of practice normally reflects an individual's primary technical discipline

Joint Venture", is a collaborative undertaking of two or more firms or individuals for which the participants are both jointly and individually responsible

Key Persons, Specialists, and Individual Consultants", as used in this questionname, refer to individuals who will have major project responsibility or will provide unusual or unique capabilities for the project under consideration

nstructions for Filing (Numbers below correspond to numbers contained in form):

- Give name and location of the project for which this form is being submitted 2 Provide appropriate data from the Commerce Business Daily (CBD) identi foring the particular project for which this form is being filed
- 2a Give the date of the Commerce Business Daily in which the project announcement appeared or indicate "not applicable" (N/A) if the source of the announcement is other than the CBD
- 2b. Indicate Agency identification or contract number as provided in the CBD announcement
- 3 Show name and address of the individual or firm (or joint venture) which is submitting this form for the project
- 3a List the name title and telephone number of that principal who will serve as the point of contact. Such an individual must be empowered to with the programs and procedures of the agency to which this form is speak for the firm on policy and contractual matters and should be familiar directed
- 3b Give the address of the specific office which will have responsibility for performing the announced work
- 4 Insert the number of personnel by discipline presently employed (on date of this form) at office specified in block 3b. While some personnel may be qualified in several disciplines, each person should be counted only once in accord with his or her primary function Include clerical personnel as "administrative." Write in any additional disciplines -- sociologists, biologists, etc.—and number of people in each in blank spaces
- 5. Answer only if this form is being submitted by a joint venture of two or more collaborating firms. Show the names and addresses of all individuals or organizations expected to be included as part of the joint venture and describe their particular areas of anticipated responsibility. (i.e., technical disciplines, adminis ration financial, sociological, environmental etc.)

Sa Indicate by checking the appropriate box, whether this particular joint venture has worked together on other projects

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STANDARD FORM 255 (Rev. 10 83) PRESCRIPTORY GSA FAR 148 CFRIST PTS 200

Specific Project

Standard Form 255 General Services Administration, Washington, D.C. 20405 Fed. Proc. Reg (41 CFR) 1-16 . 803 Armed Svc. Proc. Reg. 18-403

Each firm participating in the joint venture should have a Standard Form 254 on file with the contracting office receiving this form. Firms which do not have such forms on file should provide same immediately along with a notation at the top of page 1 of the form regarding their association with this joint venture submittal.

6 If respondent is not a joint venture, but intends to use outside (as opposed to in-house or permanently and formally affiliated) consultants or associates, he should provide names and addresses of all such individuals or firms, as well as their particular areas of technical/professional expertise, as it relates to this project. Existence of previous working relationships should be noted. If more principle outside consultants or associates are anticipated, attach an additional sheet containing requested information.

7 Regardless of whether respondent is a joint venture or an independent hrm. provide brief resumes of key personnel expected to participate on this project. Care should be taken to limit resumes to only those personnel and specialists who will have major project responsibilities. Each resume must include (a) name of each key person and specialist and his or her title. (b) the project assignment or role which that person will be expected to fulfill in connection with this project. (c) the name of the firm or organization, if any with whom that individual is presently mand other firms. (e) the highest academic degree achieved and the discipline covered (if more than one highest degree, such as two Ph D's, list both), the year received and the particular rechnical/professional discipline which that individual will bring to the project (f) if registered as an architect, which that individual will bring to the project (f) if registered as an architect, engineer, surveyor, etc. show only the field of registration and the year that such registration was first acquired. If registered in several states, do not list states, and (g) a synopsis of experience, training, or other qualities which reflect individual's potential contribution to this project. Include such data as familiarity with Government or agency procedures, similar type of work performed in the past. management abilities, etc. Please limit synopsis of experience to directly relevant information.

8 List up to ten projects which demonstrate the firm's or joint venture's competence to perform work similar to that likely to be required on this project. The more recent such projects, the better Prime consideration will be given to

projects which illustrate respondent's capability for performing work similar to that being sought. Required information must include (a) name and location of project. (b) brief description of type and extent of services provided for each project (submissions by joint ventures should indicate which member of the joint venture was the prime on that particular project and what role it played). (c) name and address of the owner of that project (if Government agency, indicate responsible office), (d) completion date (actual when available, other wise estimated). (e) total construction construction was involved, the approximate cost of your work) and that portion of the project for which the named firm was/is responsible.

9 List only those projects which the A E firm or joint venture, or members of the joint venture, are currently performing under direct contract with an agency or department of the Federal Government Exclude any grant or loan projects being financed by the Federal Government but being performed under contract to other apon Federal governmental entities. Information provided under each heading is similar to that requested in the preceding Item. 8, except for (d) "Percent Complete." Indicate in this item the percentage of A. Ework completed upon filing this form. 10 Through narrative discussion, show reason why the firm or joint venture submitting this questionnaire believes it is especially qualified to undertake the project Information provided should include, but not be limited to, such data as specialized equipment available for this work, any awards or recognition received by a firm or individuals for similar work, required security clearances, special approaches or concepts developed by the firm relevant to this project, etc. Respondents may say anything they wish in support of their qualifications. When appropriate, respondents may supplement this proposal with graphic material and photographs which best demonstrate design capabilities of the team proposed for this project.

11 Completed forms should be signed by the chief executive officer of the joint venture (thereby aftesting to the concurrence and commitment of all members of the joint venture), or by the architect engineer principal responsible for the conduct of the work in the event it is awarded to the organization submitting this form Joint ventures selected for subsequent discussions regarding this project must make available a statement of participation signed by a principal of each member of the joint venture ALL INFORMATION CONTAINED IN THE FORM SHOULD BE CURRENT AND FACTUAL

STANDARD FORM 255 (Rev 10

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| 2b. Agency Identification Number, if any: | ipal to Contact | rent from Item 3 | Total Personnel | itrative, technical and financial) | STANDATD FORM 255 (Rev. 10-63) |
|---|--|---|---|--|--|
| 2a. Commerce Business Dally Announcement Date, if any: | 3a. Name, Title & Telephone Number of Principal tο Contact | 3b. Address of office to perform work, if different from Item 3 | Oceanographers Planners: Urban/Regional Sanitary Engineers Soils Engineers Specification Writers Structural Engineers Surveyors | participating firms and outline specific areas of responsibility (including administrative, technical and financial) not on file with Procuring Office.) | |
| 1. Project Name / Location for which Firm is Filing: | | ਲ | List each person only once, by primary function.) Estimators Geologists Hydrologists Interior Designers Landscape Architects Mechanical Engineers Mining Engineers | | previously worked together? [yes no |
| STANDARD 1. Proj FORM (SF) 255 Architect-Engineer Related Services for Specific Project | 3. Firm (or Joint-Venture) Name & Address | | 4. Personnel by Discipline: (I Administrative Architects Chemical Engineers Civil Engineers Construction Inspectors Draftsmen Ecologists Economists | 5. If submittal is by JOINT-VENTURE list for each firm: (Attach SF 254 for each if | 5a. Has this Joint-Venture previously worked |

| les listed, | Worked with Prime before (Yes or No) | | | | | | | | |
|--|--|--------|--------|---|---|------|----------|-----|--------------------------------|
| 6. If respondent is not a joint-venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office). | | | | | | | | | STANDARD FORM 255 (Rev. 10-83) |
| F 254 for Consu | | | | | | | | | · |
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| dent is not a jo ady on file with | ssa | ; ! | : | i | | ! | | | |
| 6. If respond | Name & Address | | | ļ | | : | ē. | | ÷ |

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| 7. Brief resume of key persons, specialists, and individual consultants anticipated for this project. | or this project. |
|---|--|
| | a Name & Title: |
| | b. Project Assignment: |
| irm with which associa | c. Name of Firm with which associated: |
| d Years experience: With This Firm With Other Firms | d Years experience: With This Firm With Other Firms |
| ation Degree(| e. Education: Degree(s) / Years / Specialization |
| f Acti | f. Active Registration. Year First Registered/Discipline |
| and | g. Other Experience and Qualifications relevant to the proposed project: |
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| | STANDARD FORM 255 (Rev. 10 83) |

| enture members which best illustrates current qualifications relevant to this project (list not more than 10 projects). | d. Completion e. Estimated Cost (in thousands) | b. Nature of Firm's Responsibility c. Project Owner's Name & Address | | | | | | | | | | | STAMDARD FORM 255 (Fig. 10-83) |
|---|--|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|--------------------------------|
| 8. Work by firm or joint-venture members which | | a. Project Name & Location b. Natu | (1) | (2) | (5) | (4) | (5) | (6) | (2) | (8) | (6) | (10) | |

| a. Project Name & Location b. Natural Manages of the state of the stat | Project Name & Location Project Name & Location Descriptions of Firm's Responsibility Descriptions of Firm's Responsibility Ame & Address Address | c. Agency (Responsible Office) Name & Address | d. Percent complete | Percent Complete Entire Project (In Thousands) Work for which firm is responsible | Work for which firm is responsible |
|--|--|---|---------------------|--|------------------------------------|
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| porting your firm's qualifications | Date: | | STANDARD FORM 255 (Rev. 10.4) |
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| emputer design capabilities) su | | | |
| on or description of resources (including any cor | | Typed Name and Title | PD 1889 254 238/100454 |
| Tor the proposed project. Tor the proposed project. | 11. The foregoing is a statement of facts | Signature | G5A DC 75-10944 |
| <u>.</u> | = | Sign | |

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DESIGNER SELECTION CRITERIA

Many factors can and should be used as a basis for selection of designers. Often the selection committee devises some sort of rating system as a yardstick to aid in the final selection. This can be useful in narrowing choices to a few firms; however, other unforeseen and more subjective factors can be instrumental in selecting the best qualified firm. A prudent selection committee should maintain flexibility in the selection criteria to allow for these instances. Of special concern may be expertise with energy conservation as required by recent legislation. Although this list is not all-inclusive, some important factors to consider in the selection of a designer could include:

- Specialized or appropriate prior experience in the type of project being considered.
- Past performance on similar projects for your school system.
- Mutual trust and ability to communicate developed between the firm and the school system.
- Past performance on projects for other clients (including other school systems or governmental units).
- Specialized expertise with energy conservation and/or the energy conserving guidelines adopted by your Board of Education.
- Approach to design for this project and examples of successful similar projects.
- General design and construction philosophies of the firm.
- Proposed personnel to be assigned to the project and their individual experience and performance (will the project team be the individuals interviewed or "someone in the back room").
- Adequate staff to perform the project (even on a relatively large school project, the actual design team may only include 3-5 members of the design firm you commission plus their consultants). Firm size must be equated with involvement of the firm's principals, individualized attention and turnover of the firm's staff. Even large high schools do not necessarily require that you commission a large design firm or require out-of-state specialists.

(continued on next page)

- Current and anticipated workload of the designer and his consultants. If they have several large projects currently under contract, do adequate staff and resources remain to commit to your project?
- Proposed consultants, their experience and past performance. Is the designer willing to work with alternative consultants if the owner prefers?
- Record of keeping past projects within budget and on time (problems may not always be the fault of the designer).
- Record of prior projects without major legal or other problems (problems may not always be the fault of the designer).
- Value and number of Change Orders on prior projects and the reasons for the changes.
- Emphasis and capabilities of construction administration.
- Proximity to the project site and school offices.
- Proficiency with specialized areas peculiar to this project (i.e. renovation work, energy efficiency, media centers, or other areas)
- Recommendations of other clients and visits to other projects.
- Expertise with special services such as in-house construction management, feasibility studies, community participation in design, etc.
- Other factors appropriate to the project.

APPENDIX D

CONTRACT MODIFICATIONS

Listed below are several potential modifications to a standard AIA design contract. Consult with an attorney in regard to all modifications. All modifications must be included within the contract and agreed to by both parties.

- Agreement to redesign the project for no additional design fee if bids significantly exceed the cost estimate prepared by the designer and approved by the owner through no fault of the owner. Note that the designer must be allowed some control over the quality of materials and construction, the size of the project and/or the budget for this requirement to be equitable. For example, it would be unreasonable to insist upon both marble cladding and a minimal construction cost per square foot.
- Frequency of site visits with possible increased frequency during certain critical operations (such as roofing).
- A detailed enumeration of unit labor and other costs in the event that additional services are required due to unanticipated conditions. This would entail hourly rates for principals, various levels of technical and support staff and mark-up percentages for reproduction, outside services, etc.
- A method to terminate the contract and termination compensation in the event the project is cancelled through no fault of the designer.
- The inclusion of a limited number of add alternate bids for control of bid costs at no additional design fee to the Owner.
- Stipulation that certain individuals within the designer's firm and/or certain consultants be assigned primary responsibility for the project.
- Liability insurance requirements in excess of those normally carried (be prepared for potentially significant extra fees for this, consult with an attorney).
- Revision of arbitration and/or inclusion of mediation clauses. Consult with an attorney when this is considered.
- Other modifications as recommended by your attorney and negotiated with your designer.

POTENTIAL ADDITIONAL SERVICES FOR INCLUSION WITHIN THE DESIGN AGREEMENT

When negotiating the design agreement, certain items are usually considered "additional services" but in order to include all design costs within the lump sum fee, they may be enumerated as additional items to be provided within "basic services fees." These "additional services" could include such items as:

- Preparation/updating of the school systems's Property Accounting Drawings for the particular property which is being designed. This service is highly recommended due to its relatively low cost and effective means of keeping your property accounting up-to-date for future reference and planning.
- Preparation of "Construction Record Drawings" in a reproducible format (mylar) and on CADD. These drawings are invaluable when future additions or renovations are necessary and especially for determining location of hidden or underground utilities. These drawings, sometimes referred to as "As Built" drawings, cannot show every possible modification during construction but do give an excellent picture of major changes or deviations from the original plans.
- 11 month post-completion "Warranty Inspection" to coordinate repair of any defects discovered during the contractor's warranty period.
- Assistance with and/or educational and space programming.
- Full time "clerk of the works" construction administration.
- Measurement and field verification of existing facilities for renovation and addition (where reliable plans of existing facilities do not exist).
- Detailed "quantity takeoff" estimates of probable construction cost.
- The preparation of special alternate bids to compare costs of alternate building systems, additional area, equipment, etc. (such items should be enumerated and described during the contract negotiation stage).
- Preparation of models, perspective drawings or special art work.
- Filing of special permits or documents (not including filing fees) with municipal, governmental or other regulatory agencies.
- Design and specification of moveable furnishings, equipment, etc.

(continued on next page)

- Assistance with site selection, environmental analysis, feasibility studies, etc.
- Post-occupancy facility evaluation (especially useful when the facility is considered as a prototype).
- Construction or Project Management services beyond the scope of normal construction and project administration.
- Extension of Off-Site municipal utilities or roads.
- Design of On-Site water well or sewage disposal systems.
- Special or unusual design features peculiar to the project.

COSTS NOT USUALLY INCLUDED IN THE DESIGN CONTRACT

The following are other services and costs that are frequently needed in the course of planning or constructing school facilities. These items are normally contracted directly between the Owner and the entity providing the goods or services and are not a part of the design contract.

- Boundary and topographical surveys of the site. Coordinate the exact extent of needed services with the designer.
- Soil borings and subsurface investigations. The designer will need to identify the exact locations of where borings are needed.
- Material and workmanship testing during construction such as concrete strength, soil compaction and torque of bolted connections. The designer and/or the construction contract specifications will specify the exact type and number of tests that will be required.
- Cost of filing fees for document submission to regulatory agencies. These should be paid directly by the Owner (if required).
- Utility connection and acreage fees for water, sewer, electricity, gas, etc. Utility
 fees can be very significant where service to the site is not currently present or
 would require upgrading. The designer or his consultant should assist you, early
 in the design process, in determining the amount of such fees required.
- Costs for municipal impact fees, environmental permits, off-site development such as road widening, street sidewalks, driveways, etc. The designer or his consultant should assist you, early in the design process, in determining the amount of such fees required.
- · Land cost, moveable furnishings and equipment.
- Contingency reserve for unexpected items during planning, and especially during construction. A contingency of 5% to 10% of the total project budget should be established from the outset and included as a line item within the total project budget.

REFERENCES

- How to Find Evaluate Select Negotiate with an Architect
 The American Institute of Architects 11/73
- Contracting with Architects: A School District's Perspective
 NSBA Council of School Attorneys, Donald B. Sweeney, Jr., Chairman
 National School Boards Association, 1991
- Follow These Nine Steps to select the architectural firm that can design a new school according to your exact specifications
 Ellison Smith, Kenneth R. Stevenson and Leonard O. Pellicer
 The American School Board Journal, pp 36-37, May 1984
- Recommended Procedures for Selecting An Architect
 North Carolina Chapter The American Institute of Architects, May 1976
- Selecting an Engineer for Your Project
 Professional Engineers of North Carolina, 9/84
- Qualifications-Based Selection: A Process for the Selection of Architects by Public Owners

The American Institute of Architects, Washington DC

- Energy Guidelines for School Design and Construction NC Department of Public Instruction, 1991
- Questions and Answers on the Procurement of A/E Services by Public Owners
 Published jointly by the Professional Engineers in Private Practice,
 Alexandria, VA and the American Institute of Architects, Washington, DC,
 1976
- NCAIA Recommended General Format for Requests for Proposals (RFP) for School Projects in North Carolina AIA North Carolina, 1990